

ABSTRACT

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A method for modifying a wild strain of an enteroinvasive Shigella to produce a modified strain of Shigella that can be used for making a vaccine against the wild strain of Shigella. The genome of the wild strain of Shigella is transformed so that it cannot substantially invade cells of a human host and cannot spread substantially within infected cells and from infected to uninfected cells of the host and cannot produce toxins which will kill substantial numbers of the host's infected, as well as uninfected, cells. A first gene of the wild strain of Shigella, coding for a protein necessary for the Shigella to invade cells of the host, and a second gene, coding for a protein necessary for the Shigella to spread within infected cells and between the infected and uninfected cells of the host, are mutagenized.

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